In the Claims:

The current status of all claims is listed below and supercedes all previous lists of claims.

Please cancel claims 11-13, 15, 16, 18-27, amend claims 1 and 17 and add claims 28-44 as follows:

1. (currently amended) A method of identifying one or more bioagents in a sample comprising the steps of:

~~determining a first molecular mass of a first amplification product of a first bioagent identifying amplicon from the sample and comparing the first molecular mass to a second molecular mass of a second bioagent identifying amplicon, wherein both first and second bioagent identifying amplicons are correlative.~~

selecting at least one pair of oligonucleotide primers, wherein one member of said pair of primers hybridizes to a first conserved region of nucleic acid encoding ribosomal RNA and the other member of said pair of primers hybridizes to a second conserved region of nucleic acid encoding ribosomal RNA wherein said first and second conserved regions flank a variable nucleic acid region that varies among bioagents;

amplifying nucleic acid from said one or more bioagents with said pair of oligonucleotide primers to produce an amplification product;

determining the molecular mass of said amplification product by mass spectrometry;

calculating the base composition of said amplification product from said molecular mass; and

comparing said base composition to calculated or measured base compositions of amplification products of known bioagents produced by using said pair of oligonucleotide primers, thereby identifying said one or more bioagents in said sample.

2. (previously presented) A method of claim 1 wherein the sample is an environmental sample.

3. (previously presented) A method of claim 2 wherein the environmental sample is an air sample.

4. (previously presented) A method of claim 2 wherein the environmental sample is a water sample.

5. (previously presented) A method of claim 2 wherein the environmental sample is a soil

sample.

6. (previously presented) A method of claim 2 wherein the environmental sample is a surface swab sample.

7. (previously presented) A method of claim 2 wherein the environmental sample is from a building or a container.

8. (previously presented) A method of claim 1 wherein the sample is a product sample.

9. (Previously presented) A method of claim 8 wherein the product sample is a foodstuff.

10. (previously presented) A method of claim 8 wherein the product sample is a cosmetic.

11-13. (cancelled)

14. (previously presented) A method of claim 1 wherein the molecular mass of the amplification product is determined by ESI-TOF mass spectrometry.

15-16. (cancelled)

17. (currently amended) A method of claim 1 wherein said one or more bioagents is a bacterium, ~~virus~~, mold, fungus or parasite.

18-27. (cancelled)

28. (new) A method of claim 1 wherein said comparing step identifies said one or more bioagents at the genus level.

29. (new) A method of claim 1 wherein said comparing step identifies said one or more bioagents at the species level.

30. (new) A method of claim 1 wherein said comparing step identifies said one or more bioagents at the sub-species level.

31. (new) A method of identifying one or more bioagents in a sample comprising the steps of:

selecting at least one pair of oligonucleotide primers, wherein one member of said pair of primers hybridizes to a first conserved region of nucleic acid encoding a protein that participates in translation, replication, recombination and repair, transcription, nucleotide metabolism, amino acid metabolism, lipid metabolism, uptake or secretion and the other member of said pair of primers hybridizes to a second conserved region of nucleic acid encoding a protein that participates in translation, replication, recombination and repair, transcription, nucleotide metabolism, amino acid metabolism, lipid metabolism, uptake, secretion, antibiotic resistance, virulence, or pathogenicity wherein said first and second conserved regions flank a variable nucleic acid region which varies among bioagents;

amplifying nucleic acid from said one or more bioagents with said pair of oligonucleotide primers to produce an amplification product;

determining the molecular mass of said amplification product by mass spectrometry;

calculating the base composition of said amplification product from said molecular mass; and

comparing said base composition to calculated or measured base compositions of amplification products of known bioagents produced by using said pair of oligonucleotide primers, thereby identifying said one or more bioagents in said sample.

32. (new) A method of claim 31 wherein the sample is an environmental sample.

33. (new) A method of claim 32 wherein the environmental sample is a water sample.

34. (new) A method of claim 32 wherein the environmental sample is a soil sample.

35. (new) A method of claim 32 wherein the environmental sample is a surface swab sample.

36. (new) A method of claim 32 wherein the environmental sample is from a building or a container.

37. (new) A method of claim 31 wherein the sample is a product sample.

38. (new) A method of claim 37 wherein the product sample is a foodstuff.

39. (new) A method of claim 37 wherein the product sample is a cosmetic.

40. (new) A method of claim 31 wherein the molecular mass of the amplification product is

determined by ESI-TOF mass spectrometry.

41. (new) A method of claim 31 wherein the bioagent is a bacterium, virus, mold, fungus or parasite.

42. (new) The method of claim 31 wherein said comparing step identifies said one or more bioagents at the genus level.

43. (new) The method of claim 31 wherein said comparing step identifies said one or more bioagents at the species level.

44. (new) The method of claim 31 wherein said comparing step identifies said one or more bioagents at the sub-species level.